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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/821,414	03/28/2001	Robert E. Cousins	DOT-001	3684

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EXAMINER

PRIETO, BEATRIZ

ART UNIT	PAPER NUMBER
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2142

DATE MAILED: 10/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/821,414

Applicant(s)

COUSINS, ROBERT E.

Examiner

Prieto Beatriz

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03/28/01.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>10/01</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

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***DETAILED ACTION***

1. This communication is in response to application No. 09/821,414 filed March 28, 2001, claims 1-25 have examined and remain pending.
2. Information disclosure statement filed 10/12/01 has been considered, initialed accordingly and enclosed.
3. Acknowledge is made cross-related application information including Application No. 09/535,028 filed March 27, 2000, abandoned as of 09/09/02, to which this application is a continuation in-part.
4. Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Claim Rejection under 35 U.S.C. 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless – (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 1, 3-4, 8-9, 11-13, 16, and 20-25 are rejected under 35 U.S.C. 102(e) as being anticipated by SRIDHAR et. al. (US 6,266,701) (Sridhar hereafter).

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Regarding claim 1, Sridhar teaches substantial features of the invention as claimed, including a system (Fig. 1) including a plurality of clients (C4-C6), a plurality of servers (S1-S2) (col 1/lines 35-37, col 2/lines 6-11), and a device (132) (col 1/lines 54-64, col 4/lines 20-23), the device comprising

buffer means (933/965 of Fig. 9) for storing communication between said plurality of client and servers via inbound and outbound channels (col 16/lines 32-35, 17/lines 25-29 and col 15/line 63-col 16/line 4) communication between said plurality of client and servers including requests and response (col 4/lines 20-43);

the software implementation of the operation of the device, that is the software means (i.e. instructions) for managing the device's operation, the memory to store the software and the processor for execution the software/instructions (col 6/lines 37-51 and col 10/lines 21-29);

the system further comprising connection means (i.e. channels or communication paths) for connecting the device with between said plurality of clients and servers (col 4/lines 26-22, col 8/lines 47-60).

Regarding claims 3-4, distributes, e.g. forwards "back-to-back request" (i.e. requests) over the same (e.g. one) connection from the client to a server, providing proxy functionalities to a server (Sridhar: col 3/lines 15-18, col 4/lines 20-50).

Regarding claim 8-9, client TCP over IP connection, server TCP over IP connection including HTTP (Sridhar: col 9/lines 9-39, 61-col 10/line 9).

Regarding claim 11, this claim is substantially the same as claim 3, same rationale of rejection is applicable.

Regarding claim 12, a processor that manages the connection management interface device buffer (Sridhar: Fig. 9, TCP module 916).

Regarding claim 13, managing "jobs", i.e. operations, functions or task (Sridhar: col 6/lines 37-51 and col 10/lines 21-29).

Regarding claim 16, this claim is the apparatus claim associated with the system claim 1, same rationale of rejection is applicable.

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Regarding claims 20-23, these apparatus claims are associated and substantially the same as claims 8-9 and 12-13, respectively, same rationale of rejection is applicable.

Regarding claims 24-25, a first connection path means includes TCP over IP connection between the apparatus and the client (Sridhar: col 8/line 61-col 9/line 4) and include a second connection path TCP over IP connection between the apparatus and the server (Sridhar: col 8/lines 61-col 9/line 4).

*Claim Rejection under 35 U.S.C. 103*

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 5-7 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sridhar in view of Dykes et. al. (US 5,872,915).

Regarding claim 5-7, buffer is a disk drive (Sridhar: col 10/lines 21-29), however does not explicitly disclose the user of a RAM and flash;

Dykes et. al. teach the use of many different types of memory component or a single type of memory component (e.g. random access memory such as a static or dynamic or a flash or cache memory) implemented on a Internet/application gateway, which may reside on a computer (or on a client or server) distributed across several different computers (col 6/lines 24-43).

It would have been obvious to one ordinary skilled in the art at the time the invention was made given the suggestion of Sridhar for servicing client-server traffic over an intermediate device coupled between a plurality of clients and servers to utilize any type or a combination of memory components as suggested by Dykes et. al. motivation would be to enable the storage at readable volatile device storing temporary data such as a random access memory and a readable non-volatile flash memory typically externally coupled to gateway controller 20 for additional storage space.

9. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sridhar in view of MOUSSA et. al. (US Patent No. 6,742,043).

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Regarding claim 10, however Sridhar does not teach modifying the header of a reply to include information a determined length of the reply;

Moussa teaches a header of a reply including variables associated with the response to a request (col 9/lines 7-17), the header is received from a server as a response to a client's request (col 11/lines 42-48), modifying the header of said reply in response to a determined changed in content-length (col 14/lines 22-24).

It would have been obvious to one ordinary skilled in the art at the time the invention was made given the suggestion of Sridhar for implementing a intermediate device connected between a plurality of clients and a plurality of servers in to enable a connection to a server including intermediate device functions such as caching to prevent the need to establish a connection to a server for supplying content to the client to include Moussa's teaching for providing content to the client according to the clients capabilities and modifying the content type and length accordingly.

10. Claim 14 is rejected under 35 U.S.C. 103(a) as being obvious over MIGHDOLL et. al. (US 6,073,168) (Mighdoll hereafter) in view of Suraski, Z., Output buffering, and how it can change your life, December 2000, pages 1-6.

Regarding claim 14, Mighdoll teaches features of the claimed invention substantially as claimed, including a system (Fig. 1 and 4A) including a plurality of clients, a plurality of servers and a proxy device interfacing between the clients and the servers (col 2/lines 35-45), the device comprising

a buffer for buffering replies containing data from a server until the entire reply is received (col 7/lines 30-40) and sending said reply back to the client (col 2/lines 35-45); however Mighdoll does not teach modifying the header of a reply to include information a determined length of the reply;

Suraski teaches buffering replies from a server for modifying the header of the reply including determining the length of the output buffered data (pages 1-6).

It would have been obvious to one ordinary skilled in the art at the time the invention was made given the teachings of Mighdoll for streaming content between clients and server via an proxy intermediate device including transforming the content to include Suraski's teachings for modifying the header of HTTP replies including default headers parameters related to the content, applicable for when the type and size of content has changed as suggested by Suraski.

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11. Claim 14 rejected under 35 U.S.C. 103(a) as being obvious over MIGHDOLL et. al. (US 6,073,168) (Mighdoll hereafter) in view of MOUSSA et. al. (US Patent No. 6,742,043).

Regarding claim 14, Mighdoll teaches features of the claimed invention substantially as claimed, including a system (Fig. 1 and 4A) including a plurality of clients, a plurality of servers and a proxy device interfacing between the clients and the servers (col 2/lines 35-45), the device comprising

a buffer for buffering replies containing data from a server until the entire reply is received (col 7/lines 30-40) and sending said reply back to the client (col 2/lines 35-45); however Mighdoll does not teach modifying the header of a reply to include information a determined length of the reply;

Moussa teaches a header of a reply including variables associated with the response to a request (col 9/lines 7-17), the header is received from a server as a response to a client's request (col 11/lines 42-48), modifying the header of said reply in response to a determined changed in content-length (col 14/lines 22-24).

It would have been obvious to one ordinary skilled in the art at the time the invention was made given the suggestion of Mighdoll for implementing a intermediate device connected between a plurality of clients and a plurality of servers in to enable a connection to a server including intermediate device functions such as caching to prevent the need to establish a connection to a server for supplying content to the client to include Moussa's teaching for providing content to the client according to the clients capabilities and modifying the content type and length accordingly.

12. Claim 15 is rejected under 35 U.S.C. 102(e) as being anticipated by OKANOYA et. al. (US 6,128,657) (Okanoya hereafter).

Regarding claim 15, Okanoya teaches substantial features of the invention as claimed, including: a device (6 of Fig. 1) connected between a plurality of clients (8a-c) and servers (2-4) coupled over a connection (5 and 7), a method including

receiving and buffering "back-to-back request"), i.e. request made by a client (col 6/lines 58-63, col 10/lines 58-col 11/line 2, including a queuing request functions, col 20/lines 7-23);

noticing the queued request (col 8/lines 63-col 9/line 3);

distributing said request to a plurality of servers (col 2/lines 38-49).

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*Pertinent Prior Art:*

13. The following prior art made of record and not relied upon is considered pertinent to applicant's disclosure; pertinence is presented in accordance with MPEP § 707.05. Copies of Non-Patent Literature documents cited will be provided as set forth in MPEP § 707.05(a):

US 5553239 (Heath et. al.)

Heath et. al. teach a system including a plurality of clients and a plurality of server, and an intermediate device for enabling communication between the plurality of clients and servers; process server 60 is configured to transmit, over connection 62, periodic "keep-alive" messages to client 50 to assess indicate continued activity; upon receiving a keep-alive message, client 50, if active, returns an "echo" message. Process server 60 is configured to break connection 56 if excessive time passes between transmission and echo of keep-alive messages, and to generate a keep-alive message every n seconds, it will break connection 56 if it fails to receive an echo message after 2n seconds following the previous message.

US 5778372 (Cordell et. al.)

Cordell et. al. teach a client dynamically managing connections with the remote computer or site at which the electronic document resides, the browser connects with the site using a network communications protocol. Since multiple resources (e.g., the electronic document and files incorporated therein) typically are retrieved from the same site, the browser preferably uses a persistent connection (e.g., a "keep alive" connection), which can be used to retrieve multiple resources in serial succession

14. Applicant is reminded of 37 CFR 1.530 (e) Status of claims and support for claim changes. Whenever there is an amendment to the claims pursuant to paragraph (d) of this section, there MUST also be supplied, on pages separate from the pages containing the changes, the status (i.e., pending or canceled), as of the date of the amendment, of all patent claims and of all added claims, and an explanation of the support in the disclosure of the patent for the changes to the claims made by the amendment paper (see MPEP 2234). There is a strong presumption that an adequate written description of the claimed invention is present in the specification as filed, Wertheim, 541 F.2d at 262, 191 USPQ at 96; however, with respect to newly added or amended claims, applicant should show support in the original disclosure for the new or amended claims. See MPEP § 714.02, and 2163.06. ("Applicant should specifically point out the support for any amendments made to the disclosure.") (see MPEP § 2163.04).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prieto, B. whose telephone number is (703) 305-0750. The Examiner can normally be reached on Monday-Friday from 6:00 to 3:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, Jack B. Harvey can be reached on (703) 305-9705. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.



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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800/4700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system, status information for published application may be obtained from either Private or Public PAIR, for unpublished application Private PAIR only (see <http://pair-direct.uspto.gov> or the Electronic Business Center at 866-217-9197 (toll-free).

Any response to this action should be mailed to:  
Commissioner of Patents and Trademarks  
Washington, D.C. 20231

or faxed to the Central Fax Office:

(703) 872-9306, for Official communications and entry;

Or Telephone:

(703) 306-5631 for TC 2100 Customer Service Office.

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington VA, Fourth Floor (Receptionist), further ensuring that a receipt is provided stamped "TC 2100".



B. Prieto  
TC 2100  
Patent Examiner  
October 10, 2004